



# CAN Accessories

for CSM measurement modules



# CSM CAN Accessories

A wide range of accessories is available for CSM measurement modules and data loggers, such as the USB to CAN interface CSMcan, system and signal cables, plugs, sockets, mounting material, antennas, as well as memory cards.

This document provides an overview on accessories for CSM's CAN measurement modules. Further accessory datasheets are available for ECAT measurement modules, UniCAN data loggers and exhaust measurement technology.

The system cables, for the engine compartment-mounted CSM MiniModules (CAN bus and EtherCAT®/ Ethernet networking as well as power supply), are specifically made for this purpose. They are designed for high interference resistance and the lowest possible internal resistance of the supply lines as well as wide operating temperature ranges. The cables are flexible and well chemical-resistant including fuel and oil.

Do you have special wishes and requirements?  
Please do not hesitate to contact us.



## Contents

|  |           |
|--|-----------|
| <b>CSM CAN Accessories . . . . .</b>                 | <b>2</b>  |
| <b>CAN Cables and Connectors . . . . .</b>           | <b>3</b>  |
| Interface Cables . . . . .                           | 3         |
| Connection Cables. . . . .                           | 5         |
| Cable Coupler . . . . .                              | 5         |
| Sensor Cables . . . . .                              | 6         |
| Thermo MC Module Signal Cables. . . . .              | 8         |
| OUT Module Signal Cable . . . . .                    | 9         |
| Plugs . . . . .                                      | 9         |
| HV Sensor Cables . . . . .                           | 10        |
| PCMM Cables and Plugs . . . . .                      | 12        |
| <b>Mounting Components . . . . .</b>                 | <b>13</b> |
| Mounting Material MiniModules . . . . .              | 13        |
| Mounting Material Test Bench Modules (TBM) . . . . . | 14        |
| CAN Interface . . . . .                              | 14        |

# CAN Cables and Connectors

## Interface Cables

### K85

IC, L0B 5p, DS 9p / B

Connection cable between CAN socket/measurement module and CAN interface; cable includes a 1 m power supply line

#### Connectors

**A** Plug LEMO 0B 5-pole code G  
**B** Socket D-SUB 9-pole and banana plug

|            |          |               |
|------------|----------|---------------|
| ART0201077 | K85-0060 | Length: 0.6 m |
|------------|----------|---------------|

### K73

IC, L0B 5p, DS 9p / B

Connection cable between CAN socket/measurement module and CAN interface; cable includes a 1 m power supply line

#### Connectors

**A** Plug LEMO 0B 5-pole code G  
**B** Socket D-SUB 9-pole and banana plug

|            |          |               |
|------------|----------|---------------|
| ART0201051 | K73-0250 | Length: 2.5 m |
| ART0201074 | K73-0300 | Length: 3 m   |
| ART0201071 | K73-0500 | Length: 5 m   |
| ART0201524 | K73-1000 | Length: 10 m  |
| ART0201545 | K73-2000 | Length: 20 m  |

### K176

IC, L0B 5p, DS 9p / B, R

Connection cable for CAN interfaces; cable includes a 1 m power supply line and a 120 Ohm CAN termination resistor (yellow cable marking)

#### Connectors

**A** Plug LEMO 0B 5-pole code G  
**B** Socket D-SUB 9-pole and banana plug

|            |           |               |
|------------|-----------|---------------|
| ART1050101 | K176-0060 | Length: 0.6 m |
| ART1050102 | K176-0250 | Length: 2.5 m |
| ART1050103 | K176-0500 | Length: 5 m   |
| ART1050104 | K176-1000 | Length: 10 m  |

### K181

IC, L0B 5p, open

Connection cable for CAN interfaces; including power supply wires

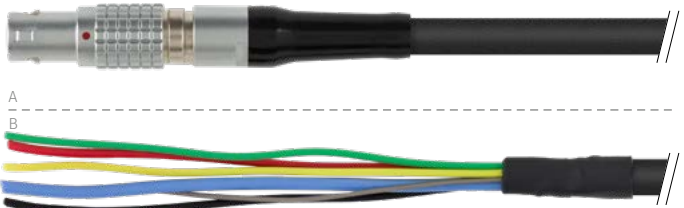
#### Connectors

**A** Plug LEMO 0B 5-pole code G  
**B** open cable end

|            |           |               |
|------------|-----------|---------------|
| ART1050105 | K181-0060 | Length: 0.6 m |
| ART1050112 | K181-0500 | Length: 5 m   |



K85, K73, K176



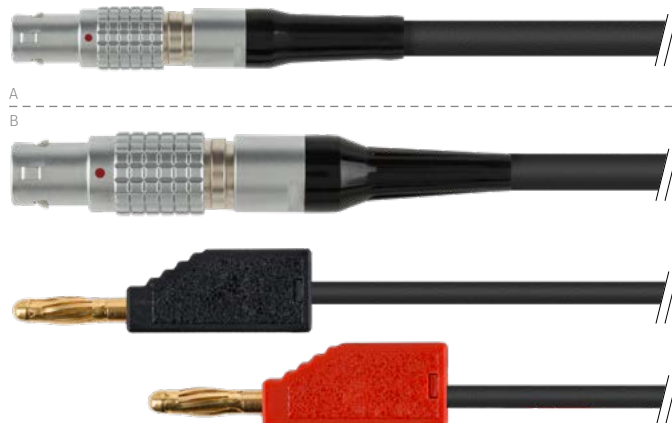
**K191 (replacement for K77)**

IC, L0B 5p, L1B 8p / B, R

Connection cable for ETAS CAN interfaces ES690, ES590/91 and ES592/93-D/95 including 1 m power supply line and 120 Ohm CAN termination resistor

**Connectors****A** Plug LEMO 0B 5-pole code G**B** Plug LEMO 1B 8-pole code C and banana plug

|            |           |               |
|------------|-----------|---------------|
| ART1050108 | K191-0060 | Length: 0.6 m |
| ART1050109 | K191-0250 | Length: 2.5 m |
| ART1050110 | K191-0500 | Length: 5 m   |
| ART1050111 | K191-1000 | Length: 10 m  |

**K45**

IC, DS 9p, L1B 8p

Connection cable for ETAS CAN interfaces ES690, ES590/91 and ES592/93-D/95

**Connectors****A** Plug D-SUB 9-pole**B** Plug LEMO 1B 8-pole code C

|            |          |             |
|------------|----------|-------------|
| ART0202049 | K45-0100 | Length: 1 m |
| ART0202048 | K45-0200 | Length: 2 m |
| ART1200101 | K45-0500 | Length: 5 m |

**K623**

IC, L0B 5p, DS 9p

Connection cable for CAN interfaces; power supply via D-SUB included

**Connectors****A** Plug LEMO 0B 5-pole code G**B** Socket D-SUB 9-pole

|            |           |               |
|------------|-----------|---------------|
| ART1050802 | K623-0250 | Length: 2.5 m |
|------------|-----------|---------------|





## Connection Cables

### K92

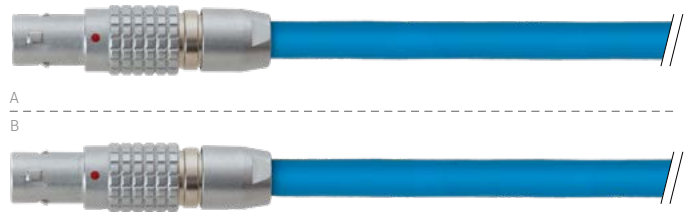
CC, L0B 5p, L0B 5p

Daisy chain cable for cascading  
CAN measurement modules

#### Connectors

A Plug LEMO 0B 5-pole code G  
B Plug LEMO 0B 5-pole code G

|            |          |                |
|------------|----------|----------------|
| ART0201133 | K92-0015 | Length: 0.15 m |
|------------|----------|----------------|



### K70

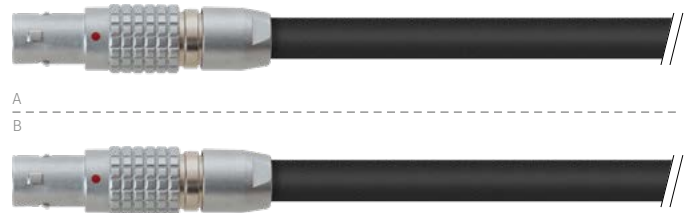
CC, L0B 5p, L0B 5p

Daisy chain cable for cascading  
CAN measurement modules

#### Connectors

A Plug LEMO 0B 5-pole code G  
B Plug LEMO 0B 5-pole code G

|            |          |                |
|------------|----------|----------------|
| ART0201070 | K70-0025 | Length: 0.25 m |
| ART0201054 | K70-0050 | Length: 0.5 m  |
| ART0201055 | K70-0100 | Length: 1 m    |
| ART0201056 | K70-0200 | Length: 2 m    |
| ART0201052 | K70-0300 | Length: 3 m    |
| ART0201057 | K70-0500 | Length: 5 m    |
| ART0201058 | K70-1000 | Length: 10 m   |
| ART1040100 | K70-2000 | Length: 20 m   |



### K72

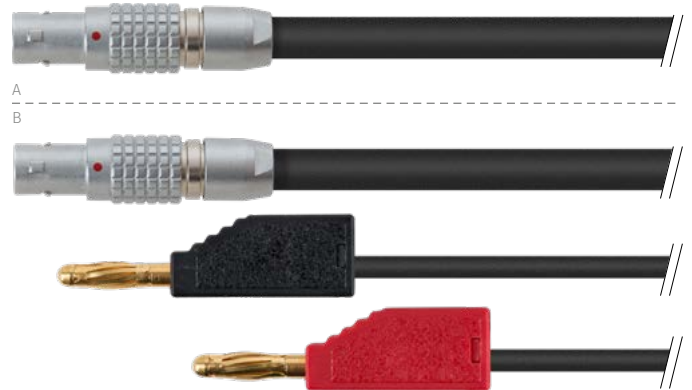
CC, L0B 5p, L0B 5p / B

Daisy chain cable for cascading CAN measurement modules,  
including 3 m power supply line for intermediate power supply

#### Connectors

A Plug LEMO 0B 5-pole code G  
B Plug LEMO 0B 5-pole code G and banana plug

|            |          |               |
|------------|----------|---------------|
| ART0201060 | K72-0250 | Length: 2.5 m |
|------------|----------|---------------|



## Cable Coupler

### K71

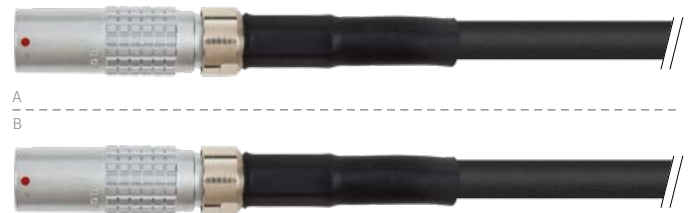
CC, L0B 5p, L0B 5p

Cable coupler for connecting two CAN connector cables

#### Connectors

A Socket LEMO 0B 5-pole code G  
B Socket LEMO 0B 5-pole code G

|            |          |               |
|------------|----------|---------------|
| ART0201059 | K71-0020 | Length: 0.2 m |
|------------|----------|---------------|



## Sensor Cables

### K134

SC, L0B 6p, open

Cable between signal input/measurement module and sensor

#### Connectors

**A** Plug LEMO 0B 6-pole code A

**B** open cable end

|            |           |                |
|------------|-----------|----------------|
| ART1060100 | K134-0025 | Length: 0.25 m |
| ART1060109 | K134-0100 | Length: 1 m    |
| ART0201202 | K134-0200 | Length: 2 m    |
| ART0201206 | K134-0300 | Length: 3 m    |
| ART1060105 | K134-0500 | Length: 5 m    |
| ART1060106 | K134-0800 | Length: 8 m    |



### K106

SC, L0B 6p, B

Cable between signal input/measurement module and sensor with positive and negative sensor excitation

#### Connectors

**A** Plug LEMO 0B 6-pole code A

**B** Banana plugs and connectors

|            |           |               |
|------------|-----------|---------------|
| ART0201169 | K106-0120 | Length: 1.2 m |
|------------|-----------|---------------|



### K100

SC, L0B 6p, B

Cable between signal input/measurement module and sensor with positive sensor excitation

#### Connectors

**A** Plug LEMO 0B 6-pole code A

**B** Banana plugs and connectors

|            |           |               |
|------------|-----------|---------------|
| ART0201150 | K100-0120 | Length: 1.2 m |
| ART0201167 | K100-0300 | Length: 3 m   |
| ART1060101 | K100-0500 | Length: 5 m   |



**K114**

SC, L0B 6p, B, R

Cable between signal input/measurement module and a sensor with integrated shunt for measurements with 20 mA sensors

**Connectors**

A Plug LEMO 0B 6-pole code A

B Banana plugs and connectors

|            |           |               |
|------------|-----------|---------------|
| ART0201178 | K114-0120 | Length: 1.2 m |
|------------|-----------|---------------|

**K110**

SC, L0B 6p, BNC

Cable between signal input/measurement module and sensor

**Connectors**

A Plug LEMO 0B 6-pole code A

B Plug BNC

|            |           |               |
|------------|-----------|---------------|
| ART0201155 | K110-0020 | Length: 0.2 m |
| ART0201154 | K110-0120 | Length: 1.2 m |
| ART1060102 | K110-0200 | Length: 2 m   |
| ART1060103 | K110-0500 | Length: 5 m   |

**K622**

SC, L0B 6p, L0B 6p

Sensor extension cable

**Connectors**

A Plug LEMO 0B 6-pole code A

B Socket LEMO 0B 6-pole code A

|            |           |             |
|------------|-----------|-------------|
| ART1060108 | K622-0200 | Length: 2 m |
|------------|-----------|-------------|

**K356 /350**

SC, L1B 8p, open, 1/4, TEDS

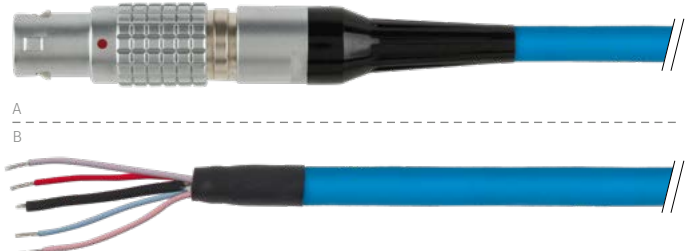
Quarter bridge completion cable (350 Ohm) in 3-wire connection with preconfigured TEDS

**Connectors**

A Plug LEMO 1B 8-pole code G

B open cable end

|            |                |             |
|------------|----------------|-------------|
| ART1420101 | K356-0200 /350 | Length: 2 m |
|------------|----------------|-------------|

**K356 /120**

SC, L1B 8p, open, 1/4, TEDS

Quarter bridge completion cable (120 Ohm) in 3-wire connection with preconfigured TEDS

**Connectors**

A Plug LEMO 1B 8-pole code G

B open cable end

|            |                |             |
|------------|----------------|-------------|
| ART1420102 | K356-0200 /120 | Length: 2 m |
|------------|----------------|-------------|

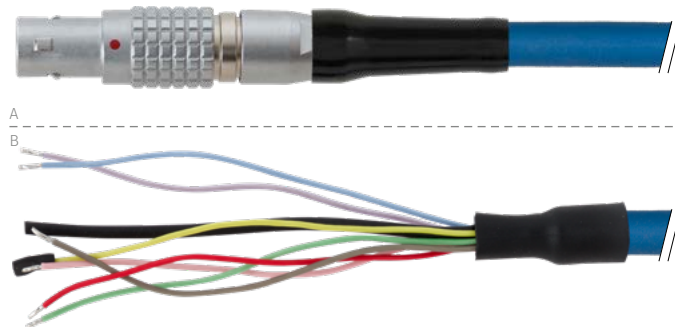
**K642**

SC, L1B 8p, open, TR

Cable between signal input/measurement module and sensor, programmable TEDS chip integrated in the cable

**Connectors****A** Plug LEMO 1B 8-pole code G**B** open cable end

|            |           |               |
|------------|-----------|---------------|
| ART1420112 | K642-0120 | Length: 1.2 m |
| ART1420113 | K642-0500 | Length: 5 m   |
| ART1420115 | K642-1000 | Length: 10 m  |

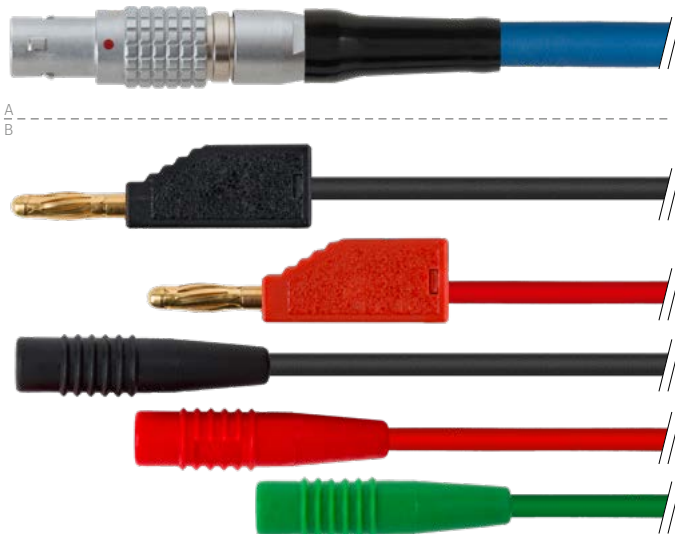
**K643**

SC, L1B 8p, B, TR

Cable between signal input/measurement module and sensor, programmable TEDS chip integrated in the cable

**Connectors****A** Plug LEMO 1B 8-pole code G**B** Banana plugs and connectors

|            |           |               |
|------------|-----------|---------------|
| ART1420500 | K643-0120 | Length: 1.2 m |
| ART1420501 | K643-0500 | Length: 5 m   |

**Thermo MC Module Signal Cables****K162**

SC, L2B 16p, open

Thermocouple cable for connecting THMC 8/THMC 16 measurement modules

**Connectors****A** NiCr-Ni multi-connector LEMO 2B 16-pole code G**B** 8 × open cable end

|            |           |             |
|------------|-----------|-------------|
| ART0201092 | K162-0200 | Length: 2 m |
|------------|-----------|-------------|

**K163**

SC, L2B 16p, TH Type K

Thermocouple cable for connecting THMC 8/THMC 16 measurement modules

**Connectors****A** NiCr-Ni multi-connector LEMO 2B 16-pole code G**B** 8 × type K miniature thermo connectors

|            |           |             |
|------------|-----------|-------------|
| ART1060601 | K163-0100 | Length: 1 m |
| ART0201149 | K163-0200 | Length: 2 m |





## OUT Module Signal Cable

### K124

SC, L1B 2p, open

Signal cable for OUT module

#### Connectors

**A** Plug LEMO 1B 2-pole code A

**B** open cable end

|            |           |              |
|------------|-----------|--------------|
| ART0201187 | K124-0200 | Length: 2 m  |
| ART0201188 | K124-0500 | Length: 5 m  |
| ART0201189 | K124-1000 | Length: 10 m |



## Plugs

### K74

CAN termination resistor, 120 Ohm

Plug LEMO 0B 5-pole code G

|            |     |
|------------|-----|
| ART0201050 | K74 |
|------------|-----|



### K87

Blind plug LEMO 0B, code A for protecting signal input connectors

|            |     |
|------------|-----|
| ART0201087 | K87 |
|------------|-----|



### K166

Blind plug for protecting Thermo signal inputs

|            |      |
|------------|------|
| ART0201526 | K166 |
|------------|------|



### Protection Plug

LEMO 1B Code A

Blind plug LEMO 1B, code A for protecting signal inputs

|            |                 |
|------------|-----------------|
| ART1030601 | Protection Plug |
|------------|-----------------|



### LEMO 0B Plug 6-pin

Code-A plug for customized cable assembly  
e. g. for ADMM signal inputs; suitable for cross sections  
from 3.3 mm to 4.2 mm, incl. black bend relief

|            |            |
|------------|------------|
| ART0201088 | Plug 6-pin |
|------------|------------|



## HV Sensor Cables

### K901

SC, R2P 8p, open

Connection cable between an HV analog measurement module and four sensors (without sensor supply) with measurement voltages up to 90 V, shielding per channel for suppressing interferences

#### Connectors

**A** multi-connector LEMO Redel 2P 8-pole code B  
**B** 4 × open cable end, 2 wires + shield each

|            |          |             |
|------------|----------|-------------|
| ART1423800 | K901-200 | Length: 2 m |
| ART1423801 | K901-300 | Length: 3 m |



### K910

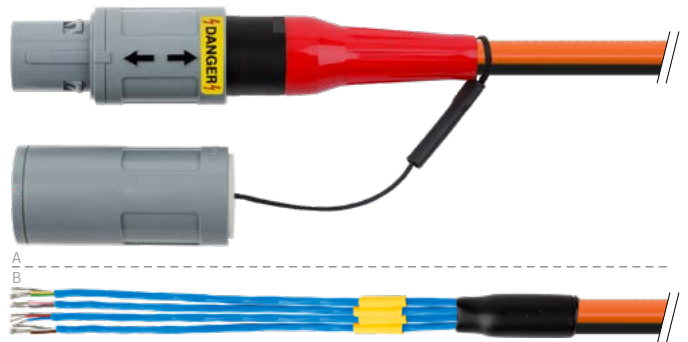
SC, R2P 8p, open

Connection cable between an HV analog measurement module and four sensors (without sensor supply) with measurement voltages up to 1,000 V, shielding per channel for suppressing interferences

#### Connectors

**A** multi-connector LEMO Redel 2P 8-pole code D  
**B** 4 × open cable end, 2 wires + shield each

|            |           |             |
|------------|-----------|-------------|
| ART1423700 | K910-0200 | Length: 2 m |
| ART1423701 | K910-0300 | Length: 3 m |



### K920

SC, R2P 8p, open

Connection cable between an HV analog measurement module with sensor supply and two sensors

#### Connectors

**A** multi-connector LEMO Redel 2P 8-pole code C  
**B** 2 × open cable end, 4 wires each

|            |           |             |
|------------|-----------|-------------|
| ART5810400 | K920-0200 | Length: 2 m |
| ART5810401 | K920-0300 | Length: 3 m |



### K950

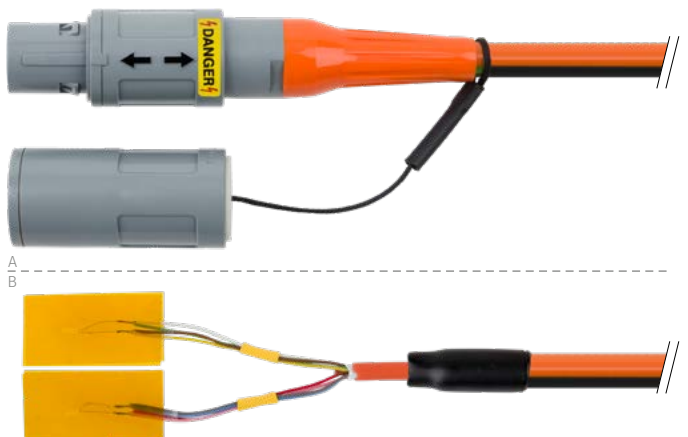
SC, R2P 8p, PT100

Connection Cable between an HV-PT measurement module and 2 × HV PT100 sensors

#### Connectors

**A** multi-connector LEMO Redel 2P 8-pole code C  
**B** 2 × PT100 sensor

|            |           |               |
|------------|-----------|---------------|
| ART5810200 | K950-0250 | Length: 2.5 m |
|------------|-----------|---------------|



**K940**

SC, R2P 8p, STC

Surface thermocouple cable for use in high-voltage environments; 4x high-voltage sensor, type K, non-insulated measuring tips

**Connectors**

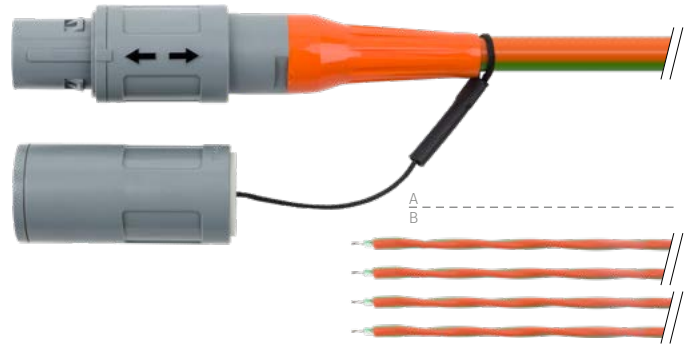
**A** NiCr-Ni multi-connector LEMO Redel 2P 8-pole code B

**B** 4 × non-insulated measuring tip

ART5810100

K940-0240

Length: 2.4 m

**K941**

SC, R2P 8p, STC, i10

Surface thermocouple cable for use in high-voltage environments; 4 × high-voltage sensor, type K, insulated measuring tips with heat-shrink sleeve protection

**Connectors**

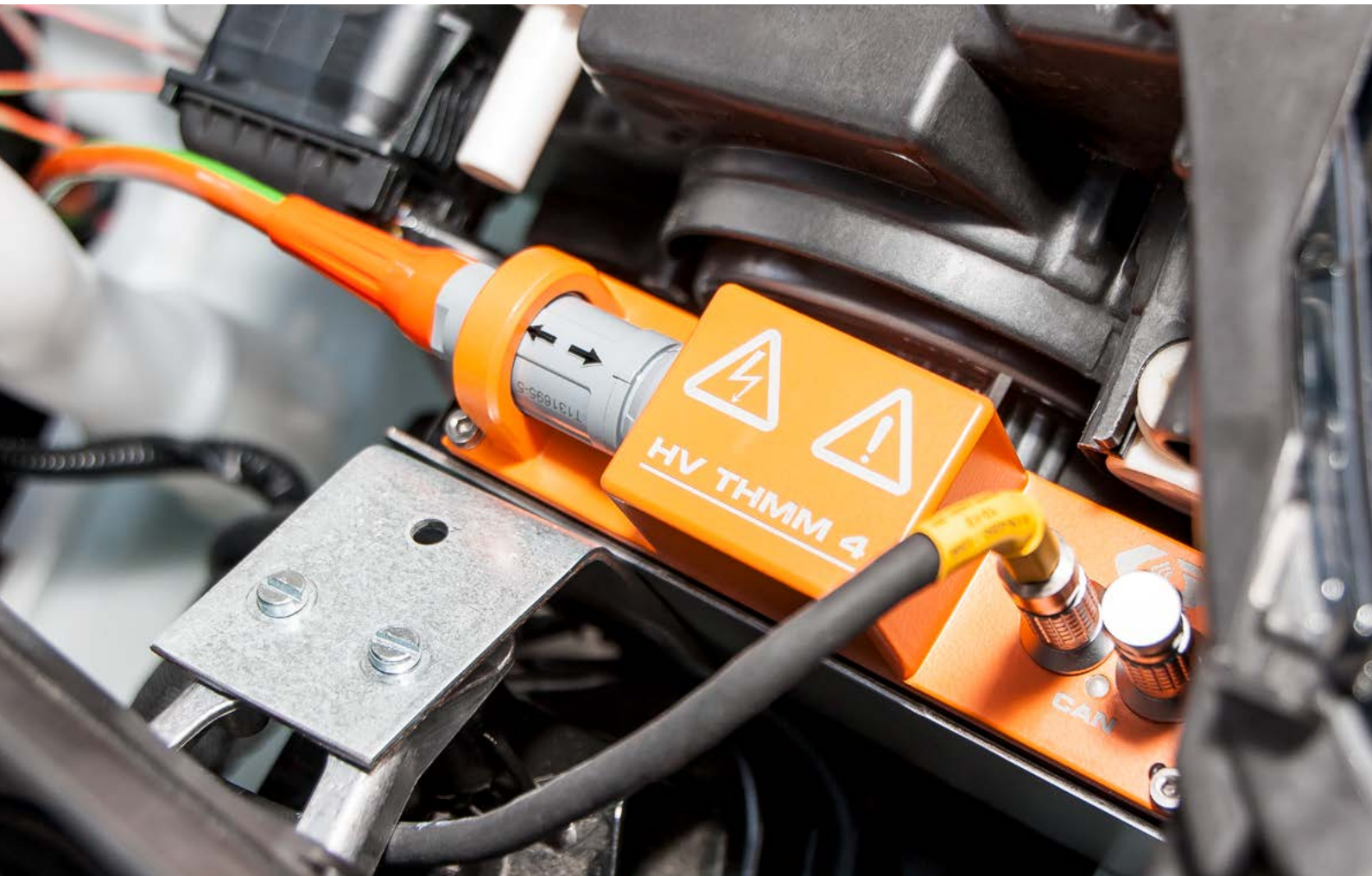
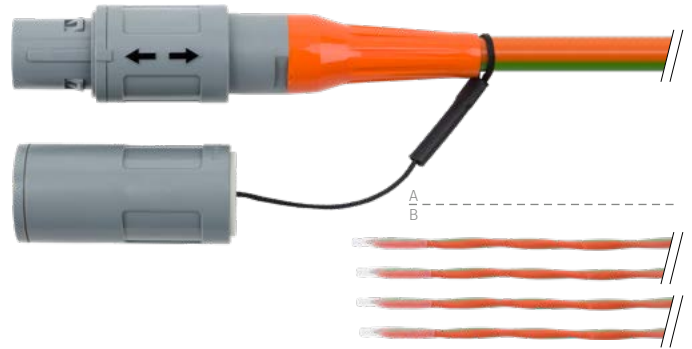
**A** NiCr-Ni multi-connector LEMO Redel 2P 8-pole code B

**B** 4 × insulated measuring tip

ART5810105

K941-0240

Length: 2.4 m



## PCMM Cables and Plugs

### K300

for PCMM Power In

Power supply cable for  
Power Control MiniModule

#### Connectors

**A** Socket Fischer S104 3-pole

**B** Banana plugs

ART0202850 K300-0200 Length: 2 m



### K301

for PCMM Power Out

Voltage output cable for  
Power Control MiniModule

#### Connectors

**A** Plug Fischer S104 3-pole

**B** Banana sockets

ART0202851 K301-0100 Length: 1 m



### K302

PCMM Config/Ext Plug

Configuration plug (Fischer, 7-pole) for PCMM to determine  
which supply line is switched by which signal

ART0202852 K302



### K303

PCMM Test Plug

Test plug (Fischer, 2-pole) for PCMM; this plug switches  
the power supply on, regardless of configuration and  
switching signals

ART0202853 K303



### K304

PCMM Config/Ext Plug

Configuration plug (Fischer, 7-pole) for PCMM:  
KEY\_ON (Kl. 15) switches the logger connected to terminal  
POWER\_LOGGER; the control signal (LOG\_SIGNAL) from the  
logger switches terminal POWER\_OUT SWITCHED.

ART1030700 K304



### K89

CC, LOB 5p, F102 7p

Connection cable between CAN module and PCMM

#### Connectors

**A** Plug LEMO 0B 5-pole code G

**B** Plug Fischer F102 7-pole

ART0201138 K89-0050 Length: 0.5 m





# Mounting Components

## Mounting Material MiniModules

### Mounting Angle SCS female

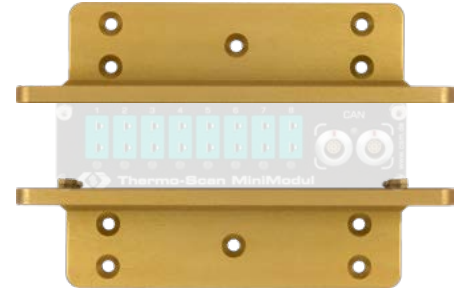
Mounting angle SCS (female) for mounting MiniModules in Slide Case Small (SCS) housings

ART1240101      Mounting Angle SCS female

### Mounting Angle SCS male

Mounting angle SCS (male) for mounting MiniModules in Slide Case Small (SCS) housings

ART1240100      Mounting Angle SCS male



### Mounting Angle SCL female

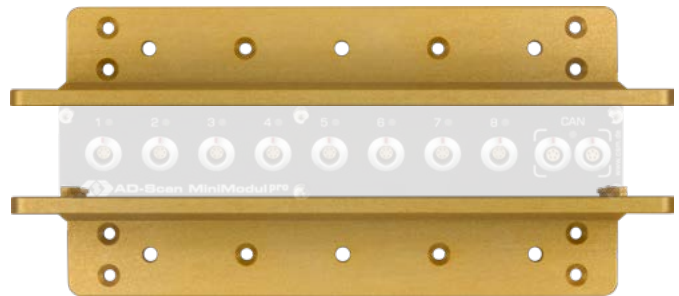
Mounting angle SCL (female) for mounting MiniModules in Slide Case Large (SCL) housings

ART0201548      Mounting Angle SCL female

### Mounting Angle SCL male

Mounting angle SCL (male) for mounting MiniModules in Slide Case Large (SCL) housings

ART0201547      Mounting Angle SCL male



### Adapter Plate Slide Case

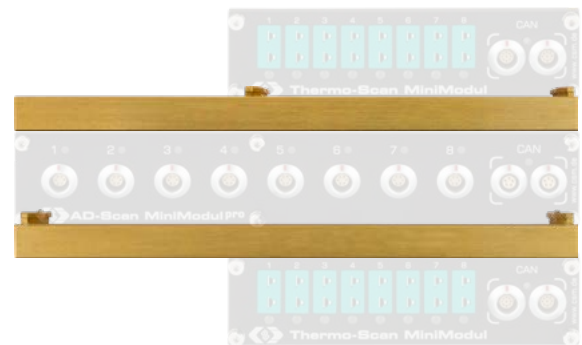
Adapter plate SCL (female) on SCS (male) for connecting differently-sized MiniModules in Slide Case housings

ART0201541      Adapter Plate Slide Case

### Adapter Plate Slide Case

Adapter plate SCL (male) on SCS (female) for connecting differently-sized MiniModules in Slide Case housings

ART0201540      Adapter Plate Slide Case



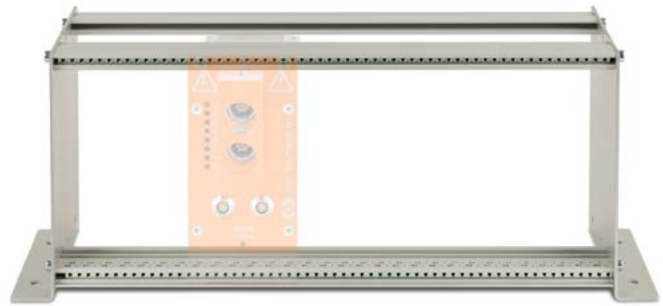
## Mounting Material Test Bench Modules (TBM)

### 19" Mounting Frame

19" frame for mounting 19" test bench modules

Height: 3 U (approx. 133 mm)

|            |             |                         |
|------------|-------------|-------------------------|
| ART1340100 | 3 U × 24 HP | approx. 133 mm × 122 mm |
| ART1340101 | 3 U × 60 HP | approx. 133 mm × 305 mm |
| ART1340102 | 3 U × 84 HP | approx. 133 mm × 427 mm |
| ART1340103 | 3 U × 95 HP | approx. 133 mm × 483 mm |

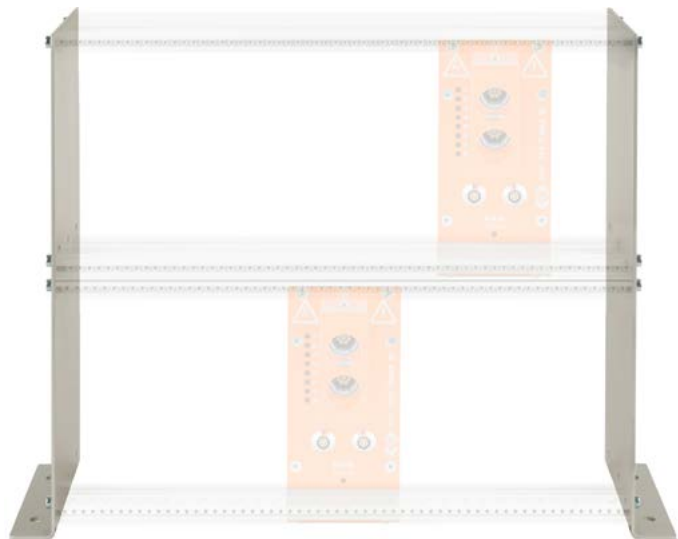


### 19" Mounting Angle

Mounting angle kit for mounting two 19" mounting frames above one another. This allows the vertical arrangement of two 19" mounting frames.

Height: 6 U (approx. 266 mm)

|            |     |                |
|------------|-----|----------------|
| ART1340201 | 6 U | approx. 266 mm |
|------------|-----|----------------|



## CAN Interface

### CSMcan

1ch CAN High Speed Interface

Single-channel USB interface, data transfer rate up to 2 Mbit/s. For CAN-based CSM measurement modules in combination with measurement software vMeasure CSM and configuration tool CSMconfig.

|            |        |                         |
|------------|--------|-------------------------|
| ART1321000 | CSMcan | approx. 65 × 40 × 20 mm |
|------------|--------|-------------------------|



## Sales contacts worldwide

### CSM GmbH (Germany, Austria)

Computer-Systeme-Messtechnik  
Raiffeisenstraße 36  
70794 Filderstadt, Germany

#### Headquarters:

Phone: +49 711-77 964-20  
Fax: +49 711-77 964-40  
Email: [sales@csm.de](mailto:sales@csm.de)

### CSM Products, Inc. (USA, Canada, South America)

1920 Opdyke Court, Suite 200  
Auburn Hills, MI 48326

Phone: +1 248 836-4995  
Email: [sales@csmproductsinc.com](mailto:sales@csmproductsinc.com)

### CSM Office Southern Europe (France, Spain, Italy, Switzerland)

Site d'Archamps  
178, rue des Frères Lumière  
Immeuble Alliance – Entrée A  
74160 Archamps, France

Phone: +33 450-95 86 44  
E-Mail: [info@csm-produits.fr](mailto:info@csm-produits.fr)

### Sales Partners

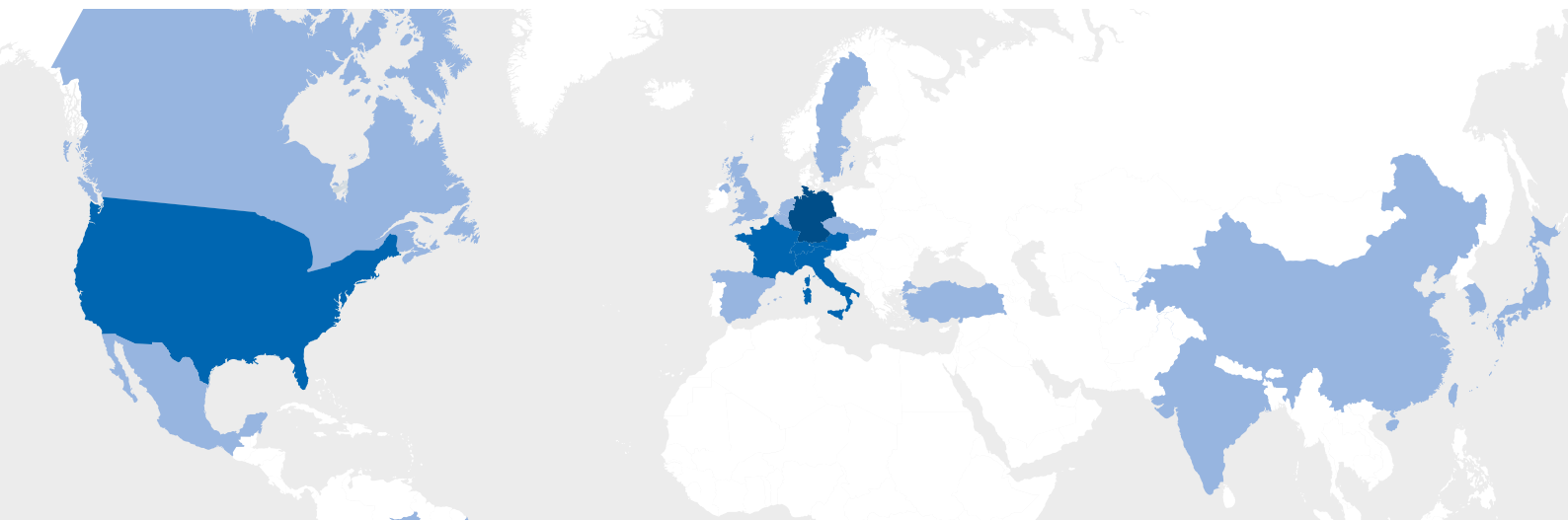
Our sales partners guarantee worldwide availability. The contact details can be found on our website on the page »Contact«.

#### Europe:

Belgium  
Great Britain  
Netherlands  
Sweden  
Slovakia  
Czech Republic  
Turkey

#### Asia:

China  
India  
Japan  
Korea



## Service & Support

Do you have specific questions or technical suggestions for the optimal use of the CSM measurement technology? Feel free to contact us, our Service & Support is at your disposal.

Take advantage of our telephone hotline:

**+49 711-77 964-444**

Or contact us over our website: [www.csm.de](http://www.csm.de) and look for the heading »Support«.



**CSM GmbH**  
**Computer-Systeme-Messtechnik**

Raiffeisenstraße 36 • 70794 Filderstadt • Germany  
Phone: +49 711-77964-20 • Fax: +49 711-77964-40  
info@csm.de • www.csm.de

Our company is certified.



All trademarks mentioned are property of their respective owners.  
Specifications are subject to change without notice.  
CANopen® and CiA® are registered community trade marks of CAN in Automation e.V.  
EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

